

APPENDIX D
PERMITTING AND AQUATIC HERBICIDE
INFORMATION

PERMITTING AND AQUATIC HERBICIDE INFORMATION

Most aquatic plant management tools can have an adverse impact on the environment if applied incorrectly or if too much vegetation is removed from a lake or river system. Because of this, there are a number of permits required to perform control work. It is important to note that this document is focused on the invasive aquatic weed Eurasian Milfoil and the necessary permits for various control options. This plant is included on the Washington State Noxious Weed List that is adopted by the state and local noxious weed boards.

Prior to the mid 1990s, all aquatic plants were treated the same with respect to permitting. However, many local and state permit programs had different requirements for the management of noxious aquatic weeds. This resulted in confusion about permitting needs, redundancy in efforts, and often times greatly increased the cost of planning and control.

The 1996 legislation made two significant changes in the permitting requirements for management of noxious aquatic weeds with respect to these types of control efforts. The first is that it exempts control efforts conducted to manage noxious aquatic weeds from the state and any local shoreline ordinances. While there can still be a local permit requirement to clear aquatic plants not categorized as a noxious weed, any control efforts that focus on Eurasian milfoil are exempt from these local permits and their requirements.

The second key change was that this legislation directed the Washington Department of Fish and Wildlife (WDFW) to develop an informational pamphlet that serves as the Hydraulic Permit Approval (HPA). Citizens, units of government, or private weed control firms can obtain this document from the Department. The pamphlet serves as a permit provided the conditions are read and followed. There is generally no need to submit any further paperwork. There are a number of general provisions that must be followed for all of the techniques described in this report. These include the following. (Note: Not all of these provisions are required for each control method. The following common technical provisions are applicable to numerous control techniques and are listed here to avoid repetition.)

Common Provisions from the HPA Pamphlet

- Removal of detached plants and plant fragments from the watercourse shall be as complete as possible. This is especially important when removing or controlling aquatic noxious weeds.
- Detached plants and plant fragments shall be disposed of at an upland site so as not to re-enter state waters.
- Work shall be conducted to minimize the release of sediment and sediment-laden water from the project site.
- Extreme care shall be taken to ensure that no petroleum products, hydraulic fluid or other deleterious material from equipment used are allowed to enter or leach into the watercourse.
- If at any time as a result of project activities or water quality problems, fish life are observed in distress or a fish kill occurs, operations shall cease and both the Department and the Department of Ecology shall be notified of the problem immediately. The project shall not resume until further approval is given by the Department. Additional measures to mitigate impacts may be required.

- Every effort shall be made to avoid the spread of plant fragments through equipment contamination. Persons or firms using any equipment to remove or control aquatic plants shall thoroughly remove and properly dispose of all viable residual plants and viable plant parts from the equipment prior to the equipment's use in a body of water.
- Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the watercourse if necessary to properly install the bottom barrier, screen, weed roller or to operate the equipment. These habitat components shall not be removed from the watercourse.
- Alteration or disturbance of the bank and bank vegetation shall be limited to that necessary to conduct the project. All disturbed areas shall be protected from erosion, within seven calendar days of completion of the project, using vegetation or other means. The banks shall be revegetated within one year with native or other approved woody species. Vegetative cuttings shall be planted at a maximum interval of three feet (on center), and maintained as necessary for three years to ensure 80% survival. Where proposed, planting densities and maintenance requirements for rooted stock will be determined on a site-specific basis. After prior authorization by the Department, the requirement to plant woody vegetation may be waived for areas where the potential for natural revegetation is adequate, or where other engineering or safety factors preclude them.
- Due to potential impacts to sockeye spawning areas, prior authorization by the Department shall be required for activities in Baker Lake and Lakes Osoyoos, Ozette, Pleasant, Quinault, Sammamish, Washington, and Wenatchee. Authorization may or may not be given for the activity, and if given, may require mitigation through a written agreement between the applicant and the Department for impacts by the activity to the spawning area. (This provision should be noted with respect to work performed in King County. Lakes Washington and Sammamish are included in this list of lakes where additional communication with the department is required. The other lakes in the County that are discussed in this report are exempt from this requirement.)

The discussion of permitting requirements is presented here according to categories of management tools; biological, mechanical and physical, and chemical. Within each management control tool, the discussion includes federal, state, and local government requirements. A simplified matrix of these permitting requirements is also provided at the end of this appendix, as well as information on specific aquatic herbicide controls for Eurasian milfoil.

BIOLOGICAL CONTROL PERMITTING

The primary operational tool that falls in this category at this point is the use of Triploid Grass Carp. The WDFW regulates the introduction of Triploid Grass Carp in Washington State. Triploid Grass Carp are sterile/non-reproducing fish and must be certified as such by the USFWS. There are two permit requirements that generally need to be met.

First, the user will need to apply to WDFW for a Grass Carp Stocking Permit. The applicant must include information on the size of the lake; the amount, location and type of aquatic vegetation present; the composition of ownership around the lake or pond; any inlet and/or outlet

from the pond, and in some cases must provide additional documentation such as studies or plans for the water body. A SEPA checklist must also be prepared for each water body.

It is relatively easy to obtain a grass carp stocking permit for a small lake or pond with one owner and no outlet (or an outlet that can be screened). In cases where there is more than one property owner, there are additional requirements in the permit. A list of names and addresses of the property owners must be provided. There must also be an indication of whether the property owner approves the stocking of this fish in the lake. This condition is generally used to ensure that one person or a small group of people do not implement activities that the majority of homeowners oppose. When the law and rules were developed for this permit process, the Department of Fish and Wildlife did not want to see large natural lakes stocked with this fish as a general practice. These lake systems are complex ecosystems and the introduction of grass carp could remove enough vegetation to alter fisheries or other environmental components. They developed a condition to protect these lake systems by requiring a much higher level of study prior to making a decision on permit issuance. This regulation used the presence of a public access as a trigger for the additional permitting requirements. The regulation indicates that a Phase One Lake Restoration Study must be performed that focuses specifically on the impacts of Grass Carp on the system prior to submittal of a permit application. The Department has in recent years relaxed this considerably. They now in some cases allow an Integrated Aquatic Vegetation Management Plan that has been developed and adopted substitute for the Phase One Study.

In many cases, the lake or pond to be stocked will have an inflow and/or outflow. If either of these conditions exist, fish screens need to be installed to keep the Grass Carp in the permitted waters and keep them from impacting other waters of the State. This is what would trigger the second permit which is an HPA from WDFW. An application and instructions can be found at this website: <http://www.ecy.wa.gov/programs/sea/pac/jarpa.html>

Many researchers are looking at other biological control agents to target various aquatic plants including Eurasian milfoil. These programs are generally not considered operational as of this time. As they do become operational, most states will probably consider and develop a permit program. At this point the Department of Agriculture in Washington State oversees permitting for introduction of the Eurasian milfoil Weevil but there is no formal permit application. The Department of Agriculture should be contacted directly for information.

MECHANICAL AND PHYSICAL CONTROL PERMITTING

There are a number of mechanical control technologies that are applicable to the management of Eurasian milfoil. These include aquatic weed harvesting, rotovation, diver dredging, and bottom barrier placement. All of these activities require a HPA from the WDFW. The common provisions for an HPA were previously described, the following describes those specific to these control options.

Bottom barriers provisions from the HPA Pamphlet

- Prior authorization must be obtained from WDFW for bottom barrier placement in Lakes Washington and Sammamish.
- For removal and control of aquatic noxious weeds, bottom barrier or screen material shall not cover more than 50 percent of the length of the applicant's shoreline. Bottom barrier or screen projects covering a larger area shall require prior authorization by the Department.
- Bottom barrier or screen and anchor material consisting of biodegradable material may be left in place. Bottom barrier or screen and anchor material that is not biodegradable shall be completely removed within two years of placement to encourage recolonization of aquatic beneficial plants unless otherwise approved by the Department.
- To remove or control aquatic beneficial plants such that an access is maintained for boating or swimming, bottom barrier or screen and anchor material that is either biodegradable or non-biodegradable may be installed along a maximum length of 10 linear feet of the applicant's shoreline. Bottom barrier or screen projects for boating and swimming access which cover a larger area shall require prior authorization by the Department.
- Bottom barrier or screen material shall be securely anchored with pea-gravel filled bags, rock or similar mechanism to prevent billowing and movement offsite.
- Bottom barrier or screen and anchors shall be regularly maintained while in place to ensure the barrier or screen and anchors are functioning properly. Barriers or screens that have moved or are billowing shall immediately be securely reinstalled or removed from the watercourse.
- Bottom barrier applications in Lake Washington and Sammamish need additional prior approval from the Department. The Northwest Regional biologist located in Issaquah is responsible for approval of those proposed applications.

Aquatic weed harvesting provisions from the HPA Pamphlet

- Mechanical harvesters and cutters shall not be used to remove an aquatic noxious weed early infestation.
- If the intent of the project is to remove aquatic beneficial plants, prior authorization by the Department shall be required.
- Mechanical harvester and cutter operations shall only be conducted in waters of sufficient depth to avoid bottom contact with the cutter blades.
- Mechanical harvesters and cutters shall be operated at all times to cause the least adverse impact to fish life.
- Mechanical harvesters and cutters shall be well maintained and where practicable, food-grade oil in the hydraulic systems should be used.
- Fish life that may be entrained in the cut vegetation during mechanical harvester operations shall be immediately and safely returned to the watercourse.

Diver dredging provisions from the HPA Pamphlet

- If the intent of the project is to remove or control aquatic beneficial plants, prior authorization from the Department shall be required.
- Dredging shall be conducted at all times with dredge types and methods that cause the least adverse impact to fish life.
- Dredges shall be well maintained and where practicable, food-grade oil in the hydraulic system should be used.

- Upon completion of the dredging, the bed shall not contain pits, potholes, or large depressions to avoid stranding of fish.
- Removal of plants and plant fragments from the watercourse shall be as complete as possible. This is especially important when removing or controlling aquatic noxious weeds.
- Plants and plant fragments shall be removed from the dredge slurry prior to its return to the watercourse.
- Dredged bed materials, including detached plants and plant fragments, shall be disposed of at an upland disposal site so as not to reenter state waters.
- A hydraulic dredge shall only be operated with the intake at or below the surface of the material being removed. The intake shall only be raised a maximum of three feet above the bed for brief periods of purging or flushing the intake system.

Diver dredging targeting Eurasian Milfoil is approved under this section of the permit. All native plant control operations need additional approval from the department.

Rotovation provisions from the HPA Pamphlet

- An individual HPA is required for all rotovation projects. Technical provisions for rotovation projects can be found in WAC 220-110-336.

AQUATIC HERBICIDE APPLICATION PERMITTING

Prior to the offer for sale of any aquatic herbicide, the manufacturer must have it registered through the Environmental Protection Agency (EPA). This requires a rigorous testing process in which registrants must demonstrate a wide range of safety to humans and compatibility with the environment in their intended use site. In addition to approval by the federal government a herbicide must also be registered for use in Washington State. The Washington Department of Agriculture (WDOA) regulates all pesticides within the State and the applicators that apply them. In Washington State, all aquatic herbicides have been classified as “restricted use materials”. This set of regulations tightens sales requirements on all distributors of aquatic herbicides. It is illegal to sell a restricted use material to any person or business that does not have a commercial or private applicator’s license. All of the registrations and approvals just described are not related to permitting for a specific project, but do affect the type of herbicides available for use and regulate who can apply them.

Project specific permitting is regulated through the WDOA’s National Pollutant Discharge Elimination System (NPDES) General Permit. This NPDES permit is a federal permit granted to WDOA for discharges associated with the control of noxious vegetation. This general permit applies to discharges to lakes, rivers, streams, riparian areas, ponds, estuaries, tidelands, ditches, and wetlands. The individual or lake group wishing to apply an aquatic herbicide must submit an application for coverage under Agriculture’s NPDES permit. It sounds complex, but is actually easy. All of the instructions and permit information, as well as an online application can be found on the following website:

http://www.ecy.wa.gov/programs/wq/pesticides/final_pesticide_permits/noxious/noxious_index.html

Table D-1. Agency Involvement and Permitting Requirements.

Method	Federal⁽¹⁾	State	Local
Biological-Grass Carp	USFWS Triploid Certification (performed at the source hatchery by the USFWS)	WDFW Grass Carp Stocking Permit required for import and introduction of fish. HPA permit approval from the same department required for any screen necessary.	Eurasian milfoil control is exempt from local permitting requirements.
Biological-Insects	Biocontrols from outside US require USDA approval for introduction. No insects for Eurasian milfoil control currently used or pending. Domestic insects are being used at the research level.	WDOA approval by letter necessary to import a biocontrol insect from another state.	Eurasian milfoil control is exempt from local permitting requirements.
Mechanical Control-Bottom Barrier	No Federal involvement.	Obtain the WDFW Publication APF-1-95. This document, when directions are followed, is the required HPA. Additional approvals may be necessary from WDFW prior to operations in Lake Washington and Sammamish.	Eurasian milfoil control is exempt from local permitting requirements.
Mechanical Control-Aquatic Plant Harvesting	No Federal involvement.	Obtain the WDFW Publication APF-1-95. This document, when directions are followed, is the required HPA. Additional approvals may be necessary from WDFW prior to operations in Lake Washington and Sammamish.	Eurasian milfoil control is exempt from local permitting requirements.

⁽¹⁾A Biological Assessment could be requested under some circumstances to meet the needs of the Endangered Species Act.

Table C-1. Agency Involvement and Permitting Requirements. (continued)

Method	Federal⁽¹⁾	State	Local
Mechanical Control-Diver Dredging	May require a Section 404 permit from the Army Corps of Engineers.	Obtain the WDFW Publication APF-1-95. This document, when directions are followed, is the required HPA. Additional approvals may be necessary from WDFW prior to operations in Lake Washington and Sammamish.	Eurasian milfoil control is exempt from local permitting requirements.
Mechanical Control-Rotovation	No Federal involvement.	An individual HPA is required for all rotovation projects. Technical provisions for rotovation projects can be found in WAC 220-110-336.	Eurasian milfoil control is exempt from local permitting requirements.
Aquatic Herbicide Application	NPDES General Permit is required. This permit is held by WDOA.	Must apply for coverage under WDOA's NPDES Permit	Eurasian milfoil control is exempt from local permitting requirements.

⁽¹⁾A Biological Assessment could be requested under some circumstances to meet the needs of the Endangered Species Act.